

WHAT IS CLAIMED IS:

1                    1.     An isolated nucleic acid molecule comprising a  
 2     polynucleotide sequence having a subsequence which specifically hybridizes  
 3     under stringent conditions to a sequence selected from the group consisting of  
 4     ~~SEQ. ID. No. 2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ.~~  
 5     ~~ID. No. 6, SEQ. ID. No. 7, SEQ. ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No.~~  
 6     10, SEQ. ID. No. 12, AND SEQ. ID. No. 13.

1                    2.     The isolated nucleic acid of claim 1, wherein the  
 2     subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~ SEQ ID NO:2  
 3     2.

1                    3.     The isolated nucleic acid of claim 2, wherein the  
 2     subsequence is ~~SEQ. ID. No. 2.~~ SEQ ID NO:2

1                    4.     The isolated nucleic acid of claim 1, wherein the  
 2     subsequence specifically hybridizes to ~~SEQ. ID. No. 3.~~ SEQ ID NO:3

1                    5.     The isolated nucleic acid of claim 4, wherein the  
 2     polynucleotide is ~~SEQ. ID. No. 3.~~ SEQ ID NO:3

1                    6.     The isolated nucleic acid of claim 1, wherein the  
 2     subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~ SEQ ID NO:4  
 3     4.

1                    7.     The isolated nucleic acid of claim 6, wherein the  
 2     subsequence is ~~SEQ. ID. No. 4.~~ SEQ ID NO:4

1                    8.     The isolated nucleic acid of claim 1, wherein the  
 2     subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~ SEQ ID NO:5  
 3     5.

1 9. The isolated nucleic acid of claim 8, wherein the  
2 subsequence is ~~SEQ. ID. No. 5.~~ *SEQ ID NO: 5*  
↑

1 10. The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~ *SEQ ID NO: 6*  
3 *β.* ↑

1 11. The isolated nucleic acid of claim 10, wherein the  
2 subsequence is ~~SEQ. ID. No. 6.~~ *SEQ ID NO: 6*  
↑

1 12. The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~ *SEQ ID NO: 7*  
3 *π.* ↑

1 13. The isolated nucleic acid of claim 12, wherein the  
2 subsequence is ~~SEQ. ID. No. 7.~~ *SEQ ID NO: 7*  
↑

1 14. The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~ *SEQ ID NO: 8*  
3 *8.* ↑

1 *Sub* 15. The isolated nucleic acid of claim 14, 16, 18, 20, wherein  
2 the subsequence is ~~SEQ. ID. No. 8.~~ *a4*

1 16. The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~ *SEQ ID NO: 9*  
3 *9.* ↑

1 17. The isolated nucleic acid of claim 16, wherein the  
2 subsequence is ~~SEQ. ID. No. 9.~~ *SEQ ID NO: 9*  
↑

1 18. The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~  
3 ~~10.~~ *SEQ ID NO:10*

1 19. The isolated nucleic acid of claim 18, wherein the  
2 subsequence is ~~SEQ. ID. No. 10.~~ *SEQ ID NO:10*

1 20. The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~  
3 ~~12.~~ *SEQ ID NO:12*

1 21. The isolated nucleic acid of claim 20, wherein the  
2 subsequence is ~~SEQ. ID. No. 12.~~ *SEQ ID NO:12*

1 22. The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes under stringent conditions to ~~SEQ. ID. No.~~  
3 ~~13.~~ *SEQ ID NO:45*

1 23. The isolated nucleic acid of claim 22, wherein the  
2 subsequence is ~~SEQ. ID. No. 12.~~ *SEQ ID NO:45*

1 24. The isolated nucleic acid of claim 1, further comprising a  
2 promoter sequence operably linked to the polynucleotide sequence.

1 25. The isolated nucleic acid of claim 1, which nucleic acid is  
2 a cDNA molecule.

*Sub*  
*D1*

26. A method of screening for neoplastic cells in a sample, the method comprising:

contacting a nucleic acid sample from a human patient with a probe which hybridizes selectively to a target polynucleotide sequence comprising a sequence selected from the group consisting of ~~SEQ. ID. No. 1, SEQ. ID. No. 2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ. ID. No. 6, SEQ. ID. No. 7, SEQ. ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No. 10, SEQ. ID. No. 11, SEQ. ID. No. 12, and, SEQ. ID. No. 13~~ wherein the probe is contacted with the sample under conditions in which the probe hybridizes selectively with the target polynucleotide sequence to form a stable hybridization complex; and detecting the formation of a hybridization complex.

27. The method of claim 26, wherein the nucleic acid sample is from a patient with breast cancer.

28. The method of claim 26, wherein the nucleic acid sample is a metaphase spread or a interphase nucleus.

29. The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in ~~SEQ. ID. No. 1~~ *SEQ ID NO: 1*

30. The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in ~~SEQ. ID. No. 2~~ *SEQ ID NO: 2*

31. The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in ~~SEQ. ID. No. 3~~ *SEQ ID NO: 3*

32. The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in ~~SEQ. ID. No. 4~~ *SEQ ID NO: 4*

33. The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in ~~SEQ. ID. No. 5~~ *SEQ ID NO: 5*

1           34.    The method of claim 26, wherein the probe comprises a  
2 polynucleotide sequence as set forth in ~~SEQ. ID. No. 6~~ <sup>SEQ ID NO: 6</sup>.

1           35.    The method of claim 26, wherein the probe comprises a  
2 polynucleotide sequence as set forth in ~~SEQ. ID. No. 7~~ <sup>SEQ ID NO: 7</sup>.

1           36.    The method of claim 26, wherein the probe comprises a  
2 polynucleotide sequence as set forth in ~~SEQ. ID. No. 8~~ <sup>SEQ ID NO: 8</sup>.

1           37.    The method of claim 26, wherein the probe comprises a  
2 polynucleotide sequence as set forth in ~~SEQ. ID. No. 9~~ <sup>SEQ ID NO: 9</sup>.

1           38.    The method of claim 26, wherein the probe comprises a  
2 polynucleotide sequence as set forth in ~~SEQ. ID. No. 10~~ <sup>SEQ ID NO: 10</sup>.

1           39.    The method of claim 26, wherein the probe comprises a  
2 polynucleotide sequence as set forth in ~~SEQ. ID. No. 12~~ <sup>SEQ ID NO: 12</sup>.

1           40.    The method of claim 26, wherein the probe comprises a  
2 polynucleotide sequence as set forth in ~~SEQ. ID. No. 13~~ <sup>SEQ ID NO: 45</sup>.

1           41.    The method of claim 26, wherein the probe is used to  
2 identify the presence of a mutation in the target polynucleotide sequence.

42. A method for detecting a neoplastic cell in a biological sample, the method comprising:

contacting the sample with an antibody that specifically binds a polypeptide antigen encoded by a polynucleotide sequence comprising a sequence selected from the group consisting of ~~SEQ. ID. No. 1, SEQ. ID. No. 2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ. ID. No. 6, SEQ. ID. No. 7, SEQ. ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No. 10, SEQ. ID. No. 11, and SEQ. ID. No. 12~~; and

detecting the formation of an antigen-antibody complex.

43. The method of claim 42, wherein the sample is from breast tissue.

44. A method of inhibiting the pathological proliferation of cancer cells, the method comprising inhibiting the activity of a gene product of an endogenous gene having a subsequence which hybridizes under stringent conditions to a sequence selected from the group consisting of ~~SEQ. ID. 1, SEQ. ID. No. 2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ. ID. No. 6, SEQ. ID. No. 7, SEQ. ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No. 10, SEQ. ID. No. 11, and SEQ. ID. No. 12~~.

45. A method of detecting a cancer, said method comprising detecting the overexpression of a protein encoded in a 20q13 amplicon.

46. The method of claim 41, wherein said protein encoded in a 20q13 amplicon is ZABC1.

47. The method of claim 41, wherein said protein encoded in a 20q13 amplicon is 1b1.

add B2